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ABSTRACT

Included in this student booklet are a variety of learning activities for secondary students which will aid their understanding of the United States economic system. Basic concepts are introduced which show how a market mechanism resolves the conflict between finite resources and infinite desires, how supply and demand interact, and how competition among commodities and available reserves, as well as among perspective purchasers, influence pricing. Students are exposed to these concepts on a personal level, helping them to answer the following kinds of questions: (1) What kind of car should I buy considering the energy crisis? (2) Should I go to college or to work after high school graduation? (3) What summer jobs are available? Following an introduction which defines and introduces the market system, activity chapters focus on consumerism, money problems, scarcity of natural resources, distribution of goods, supply and demand, getting enough gasoline, the case for rationing, motorcycles and public safety, and future fear. Although there is some variation, most lessons begin with a newspaper article on one of the former-mentioned economic topics. Then, lists of difficult terminology and a number of questions follow to help students comprehend what they read in the article. The teacher's guide is SO 008 865. (Author/JR)

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THE MARKET SYSTEM: Does It Work?

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Introduction

Student Notes

Does it seem that you never have enough money to buy the things you really want? Are your parents always telling you: "You have to learn to manage your money better." Do not feel that you are the only one with such problems. Businessmen face the same problems every day. Politicians hear the same thing every election day. The problem is that everybody desires more than their resources allow them to have. How these limited resources are spent is the foundation of economic understanding. Economics is concerned with decisions people make about how to allocate a limited set of resources so that their wants and needs can best be satisfied.

The lessons in this particular booklet probably will not help you make your money go further. It will, however, help you understand why things cost so much, especially things you want. It will also help you understand why it is the things you and your friends do not want are usually cheap. It will help you understand some questions like those below.

1. What kind of car should I buy considering the energy crisis?
2. Should I go to college or to work after high school graduation?
3. What summer jobs are available?
4. What does the future hold regarding my job prospects?

All of the above questions represent personal matters. Yet economics can provide an added dimension regarding public issues that may also concern you. Most high schools offer some form of educational experience regarding drug education and this area provides an excellent example of applying economics to both a public and private issue. Without taking a value position on whether Cannabis Sativa, more commonly referred to as "grass" should be legalized, let's explore how economics can provide another dimension

Smokers of Marijuana Now Find Cost Can Be Higher Than Effect

• • •

Crackdown on Mexican 'Grass' Cuts Supply, Raises Price; Riskier Substitutes Feared

By PEGGY J. MURRELL
Staff Reporter of THE WALL STREET JOURNAL

American college students and others who like to blow away their troubles in pungent clouds of smoky euphoria are in for still more trouble. Their grass is drying up.

Grass is marijuana. Pot began to be scarce in June when Mexico started cracking down on shipments of the weed smuggled into the U.S. Now the U.S. and Mexico have agreed to greatly increase surveillance along their border. An estimated 90% of the marijuana smoked in the U.S. is picked in Mexican fields and transported across the border.

"Nobody can get any grass," says Frank, a college sophomore spending his summer vacation in New York's East Village. "After all this damned LSD, speed (an amphetamine) and mescaline that's going around, it sure would be great to get back to some nice, soft pot." Frank had intended to stock up on marijuana in New York and take it to his friends at college, but the "pot drought" has left him empty-handed. "It's really awful," he complains. "What will I tell the kids?"

Frank can still buy grass, particularly the American-grown variety, but at as much as $30 an ounce, or about twice as much as he would have paid a few months ago for the more potent Mexican variety.

Domestic grass, particularly the kind grown in Illinois, Iowa and Minnesota, is being shipped to the West Coast "in significant quantities," according to one Federal narcotics official. And some peddlers, he adds, are passing off oregano, alfalfa and other noneuphoric plants as marijuana, or mixing them with small quantities of the real article to exploit what he calls the "starvation mentality" created by the grass shortage.

A 34-year-old New York brokerage firm librarian and occasional pot smoker says that grass from the Midwest, New Jersey and up-state New York is about the only thing available in New York City now. Local narcotics officials agree.

"The stuff is really terrible," says the librarian, "but it's all there is." The influx of inferior and phony marijuana has forced buyers to shop more carefully than in the past. "There's more emphasis than ever on 'try before you buy.' Before, if you knew the person, you usually didn't bother," laments the librarian.

Far from rejoicing at the marijuana shortage, some narcotics officials are now afraid that pot smokers may switch to other, more dangerous routes to euphoria. Marijuana has so far been judged non-habit-forming by medical authorities.

"Youthful drug experimenters, if they can't get one kind of drug, will look for something else," says William Durkin, Head of the New York Bureau of Narcotics and Dangerous Drugs.

A 21-year-old Radcliffe College senior is even more emphatic. "I really didn't want to try acid (LSD) before. But there's no grass around, so when somebody offered me some (LSD), I figured, 'What the hell.' I didn't freak out or anything, so I've been tripping ever since."

The Wall Street Journal, 9-11-69

to the issue. For example the article to the left appeared in *The Wall Street Journal* several years ago discussing the effect of "operation intercept."

After reading the selected paragraphs from the original marijuana article, several questions requiring an understanding in economics may be raised.

1. What effect did the increased surveillance along the border have on the supply and resulting price of grass?
2. What happened to the demand for substitutes of marijuana?
3. How do governmental actions such as "operation intercept" affect the price of marijuana?
4. Would society be better or worse off if marijuana were legalized?

Possibly some of these questions are premature, but we believe that you'll be able to respond to these questions after you read the materials on the market and do some of the activities in this booklet.

How This Booklet Is Organized

This booklet has a variety of activities and each lesson will be a little different. There are though, certain things which appear in each lesson and it is important that you know how they work.

Whenever you find a newspaper article you will find two sections which follow the article. The first of these is called "To Guide Your Reading." This lists some words that might give you trouble. Your teacher might add some words to this list and this is within the rules. In fact we suggested that your teacher do this. None of us is trying to be cruel. All we want to do is help you understand what you read. If you do not know what these terms mean, you will not be able to understand the article. In order to discuss the article first you have to know what it says.

The section "Some Questions to Consider" is doing the same thing. Helping you understand the article. If you can answer each of these short questions then you understand what you just read. The way to find the answers is to go back to the article and read it very carefully. All of the answers can be found in the article.

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If you do these two sections you can say that you know what the article is talking about. Then you will be able to do the rest of the lesson, whatever it might be. Some variation to this format has been made in later lessons.

The Market System of the U.S.

Student Notes

The fundamental assumption of economics is that all resources and commodities are scarce. There is never enough of anything to satisfy all the wants and needs of everybody, everywhere, at every time. Some mechanism is necessary for determining what commodities will be produced from the resources available, how much those commodities will be worth, and who will get them.

Scarcity

The ever changing world of the 1970's has caused the people in the United States to come to grips with the reality that the world of scarcity does exist. That America, the "land of plenty" must face up to some very difficult questions regarding the present and future allocation of resources.

The necessity for economic activity, production and distribution of goods and services, results from the varying human wants and desires of society. When one examines human behavior it appears that human wants are without limits. Although at times, we may acquire temporary satisfaction, most often we are desirous of obtaining something presently not in our possession. Often times we may observe other people enjoying something and we think our level of well-being would be elevated. A moments reflection would cause one to recall dreaming "if only I had that coat, car, motorcycle, boat, dress, suit, baseball glove . . .," I would be much happier.

The fundamental economic problem is that the means available for satisfying wants are scarce or limited. Regard-

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less of the organization of an economic system, there are limitations about what can be produced at a given time. Although the U.S. is well endowed with natural resources, people are becoming increasingly aware that our wants go beyond our available resources. Many natural resources are running dangerously low. Thus, the world of scarcity does exist, and mankind must devise a system to enable the present and future population to make decisions regarding future resource allocation.

The Market System

The mechanism employed by some societies throughout the world is one or another variation on the market system. Here producers and consumers may bargain, either directly or indirectly, over the prices of resources, goods and services, using some commonly recognized medium of exchange.

In such a system, the desire of consumers to purchase a commodity helps set its value; when desire is great, the value is usually high, especially if a shortage exists in the quantity available. And as that value increases, producers of the desired commodity will be stimulated to provide more of it, since they will want to sell more at the higher prices. An increase in quantity reduces temporary shortages, in turn, will cause prices to level off, and possibly even drop, since competition among consumers wishing to purchase will be eased as more of the commodity enters the market. Prices rise and fall in the market system both in response to fluctuations in consumer desire and product availability.

While a freely operating market system may be effective in setting prices and matching production to consumer desire, it provides little accommodation to the limited means of those consumers on the lower end of the economic scale, and it affords less than equal competitive advantage to all producers offering their commodities in the marketplace.

When a society or its government judges that the workings of an economy impose special handicaps on some individuals or groups, or that certain factions enjoy an undue advantage within the market, economic forces may be modified to compensate for the disparities in competitive ability.

Such a situation exists within the current economic environment of the United States. Anti-trust rules, labor regulations, product standards, mininum wage requirements, income supplements and other laws, programs and guidelines,

all serve to encourage, restrain or augment the interplay of basic market forces. Yet with all its complexities, the modern economy still provides for the essential functions of production, distribution and consumption, and the recognized principles of economics, as civilization itself still come into play.

How a Market Operates

The basic purpose of a market is to bring producers and consumers together to exchange resources, products or services for other commodities of value. They may be either money, precious materials or other products or services. To accomplish this exchange, the desires of producers to maximize profits and the desires of consumers to purchase goods and services at the lowest possible price must be brought into harmony.

The bargaining which goes on in the market, whether expressed directly as in the bidding of an auction, or indirectly in selections between competing products, effects more than just the prices of commodities being offered currently. What consumers pay for products indicates the level of their desire or *DEMAND* for those products.

If for example, the price of milk jumped to $5.00 per quart, and a large number of consumers (mothers of small children, for instance) continued to purchase milk at such an inflated price, it would be obvious that milk is a vital commodity and that many people desire it very much. Producers weigh such indications of consumer desire heavily in their planning for the future. What will be offered in tomorrow's market is directly related to the prices being paid in today's.

But once producers have determined which commodities consumers desire, they have to answer the equally critical question of how much to provide or SUPPLY. Again, they look to current market prices for some indication.

To illustrate: beef is a popular foodstuff in this economy, and many people are willing to pay quite high prices to obtain it, though as with any commodity, consumers will purchase more when prices are lower. However beef is expensive to produce, prepare and deliver to market. Feed, shelter, labor, and transportation all add costs at every step from farm to table, and those costs increase as more beef is produced. Although lower prices may stimulate sales, the

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larger quantity of meat may reduce potential profits which would not justify increased production; all of which makes producers less eager to produce when prices decrease in spite of the increase in sales which may result.

But somewhere on the scale of all possible prices which might be paid for a commodity there is one price at which it becomes profitable for producers to provide a quantity adequate to satisfy those consumers willing to pay. Economists call this the EQUILIBRIUM PRICE, the point at which consumer desire and the willingness to purchase, or QUANTITY DEMANDED, exactly equals QUANTITY SUPPLIED in the particular market.

The following table illustrates four possible price/quantity relationships in a hypothetical market situation. Column B lists the possible prices at which a particular commodity could be sold. Columns A and C list, respectively, the quantities consumers would demand and the quantities producers would be willing to supply at each stated price.

	A	B	C
	QUANTITY DEMANDED	PRICE	QUANTITY SUPPLIED
A.	20 units	$ 5	0 units
B.	15 units	$10	5 units
C.	10 units	$15	10 units
D.	5 units	$20	15 units

The table shows that $5 is a price at which many consumers would purchase the commodity, but that producers would find it too low to be profitable and so would not supply any quantity at all. Similarly, many units would be purchased at $10, but the quantity produced would not be sufficient to meet the demand. If the price were raised to $20, however, producers would be eager to provide a large quantity, but most consumers would feel either that the commodity offered is not worth that price or that they simply cannot afford to pay so much. Few units would be purchased. The one price at which all the units produced would be consumed is $15, which is the EQUILIBRIUM PRICE for this hypothetical market.

The results of such "bargaining" between producers and consumers are evident in any store or supermarket throughout the United States. Each item on sale was produced in anticipation of someone desiring to purchase it. Each price posted is a bargaining position in the endless negotiations between buyer and seller. If a store operator finds for instance, that all the beef in his stock has sold out quickly, he might decide that he can raise his prices and still sell the

same amount, or sell less but make more profit. On the other hand, if sales are lagging he might find he has to reduce his prices in order to attract more customers and recover at least part of his expenses before the meat spoils.

Millions of independent production, distribution and consumption decisions combine to provide today's market with an astounding variety of goods from around the world, often at startlingly disparate prices. Yet the ultimate decision, and the one toward which all other economic decisions are directed, is that final choice made by the individual consumer: Which products will I buy at the prices offered? In the end, it is that decision which either confirms or refutes all the others made before.

Factors Affecting Supply and Demand

It becomes apparent early in any study of economics that conditions and developments in one area of a market exert great influence in other areas. All the many factors of production, distribution and consumption are inextricably intertwined, the fortunes of every enterprise depend in ways both obvious and obscure, on the ups and downs of countless other economic activities. A shift in the quantity demanded for one commodity, or a reduction in its supply, will have its effect on another commodity, perhaps making it an attractive substitute for the first. And expectedly, an increase in the quantity demanded for the alternative product will put upward pressure on its price, stimulating many consumers to turn still elsewhere for less expensive commodities which can be substituted.

As always, we return to the fundamental assumption of economics: scarcity. If consumers wish to purchase more beef than is immediately available, beef may become scarce, relative to the demand for it, and prices will tend to rise—to a new EQUILIBRIUM PRICE. So, many consumers may wish to forego some beef in favor of some less expensive foods, perhaps chicken. Or maybe they will stop buying beef altogether and buy all chicken, or some chicken and some protein-rich grain products, such as soybean meat substitutes.

As consumers who would normally purchase beef compete more actively in the market for chicken and grain products, bidding up prices in the process, those consumers who would normally rely heavily on these less expensive commodities find they must look farther down the scale of demand for their substitute foods. They may purchase more beans

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and other vegetables, grains or less expensive innard meats, like chitterlings. The effects of such changes in consumer demand eventually work their way through the full range of foods available in the marketplace, increasing or diminishing the desirability of various commodities and readjusting their prices.

Of course, changes in taste also influence demand, as does a rise or fall in the general standard of living within a society. For instance, where beef was once considered a luxury item in the diets of most Europeans or Japanese, the substantial rise in incomes which most of these people have experienced since the end of World War II has fostered a growing taste, and the means to indulge it, for large portions of beef in their daily meals. They now compete actively in the beef markets of the U.S. and other major meat producing nations.

Such shifts in demand naturally influence quantity supplied, as producers tailor their production schedules and marketing plans to gear up for greater output of those goods whose prices are on the rise. But outside forces, as well, influence supply. Food production is clearly dependent on favorable weather conditions as well as on advances in agricultural technology. Likewise, technological developments effect industrial output, extraction of mineral resources, even the efficiency of service operations like transportation or communications.

A change in supply, for example, will result in a change in price and a change in quantity demanded. The Arab boycott in 1973-74 is an example of the multiple impact the average consumer experienced with the supply curtailment of one product, oil. This sudden, sharp reduction in the supply of crude oil resulted in upward pressure on the price of gasoline which had ripple effects throughout the economy. The repercussions of this Arab action was first directly felt by large numbers of people when lines of cars began to pile up around service stations. Later, in 1974, the tidal wave of prices began to gain momentum as consumers experienced the importance of increasing energy costs on the production and transportation of other products.

Although the price of a gallon of gasoline was held below the market equilibrium, the price of a gallon of gasoline went up. This increase in the price of gasoline, caused demand to shift downward in products such as large automobiles and put an increase or shift upward for alternative forms of transportation such as buses and railroads. The consequences of the gasoline problem extended into other related markets. For example, automobile related services:

Filling stations, body shops, auto parts suppliers, drive-in movies along with restaurants and fast food outlets which thrive in areas with a high volume of automobile traffic. In summary, the effect of the automobile is so dramatic that one out of every six jobs are related to this all-encompassing industry.

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Eventually, even additional areas were affected, such as real estate prices, properties increasing or decreasing in value depending on proximity to transportation facilities or to the business establishments which rely on convenient access by automobile.

Additionally, the supply of one commodity influences the supply of others, not only through production changes aimed at meeting shifts in demand, but directly in the quantity of goods produced using other goods as ingredients or means of production. The supply of gasoline and other refined petroleum products is partially dependent on the supply of crude oil; the supply of bread is related to the supply of wheat and other grains; the supply of milk is somewhat dependent on the supply of cows.

Supply has indirect influences, also. Cows need feed to give milk, but they eat grains which are also used to produce bread, so the supply of grain available for animal feed competes with the supply available to bakeries. Likewise grain production is dependent on fertilizers, many of which are manufactured from petroleum, as well as on farm machinery which runs on gasoline. So, the supply (and, therefore the price) of both milk and bread is very greatly influenced by the supply of oil, as well as on countless other factors in the complex web of economic relationships.

Modifying the Market System

All the examples drawn here are, of course, arbitrary and take no account of the influences of government on market forces. In real life, economic activity is constantly guided by laws and regulations, and government itself plays the roles of supplier and demander in many and diverse economic situations.

The hand of government is probably most apparent in times of economic stress, when legislative power is applied to curb inflation, stimulate business activity or otherwise combat some prevailing economic ill. Mechanisms such as price supports and restraints or minimum and maximum

wage requirements all modify the interplay of market forces in fairly obvious ways.

Price supports tend to generate product surpluses, since producers wish to supply large quantities of goods at the artificially high prices imposed above the market equilibrium. As a result consumers then cut back their purchases or substitute less expensive products for inflated-price goods. Price supports imposed on farm products from 1929 to 1973 created huge surpluses in many food grains that had to be stored, shipped abroad and even destroyed, because the artificial price floors stimulated suppliers to provide grain in excess of actual consumer demand. The grain market was never permitted to determine its true equilibrium price. As some prices for agricultural products have begun to drop in 1975, one may question the economic wisdom of Congress as agricultural price supports are again being considered as a policy alternative.

Restraints on prices, on the other hand, tend to create shortages, since producers see limited profitability in supplying large quantities of products whose prices are controlled, and thus cut back production or shift resources into producing goods which are permitted to sell at true equilibrium prices. Such controls on the price of beef resulted in severe shortages in meat markets during the summer of 1973, as cattle raisers refused to supply beef at the artificially low per-pound prices imposed by government regulation.

The effects of government intervention can be seen similarly in the labor market, though workers have considerably less flexibility in offering or withholding their labor than do businesses in increasing, reducing or redirecting production. Nevertheless, the supply of labor increases (which is to say, more people are willing to work) when the minimum wage is raised, though such a raise causes many marginal jobs to be eliminated by employers seeking to avoid the added expense. Likewise, workers are less stimulated to offer their labor when limits are placed on their potential earnings, especially with unemployment compensation, welfare payments and other income maintenance programs increasingly available to mitigate the hardships of unemployment.

Government influences the market system in less obvious ways. State governments may control interest ceilings on mortgage money which will then have immediate effects on the future availability of houses along with future home construction. In addition, tax laws with their myriad obligations, loopholes and deductions, hold vast implications for the conduct of business, the distribution of income and

the overall economic health of the nation, as do the welfare and other public assistance programs (referred to by economists as "transfer payments") that work their influence on the labor market.

Of course, government is also a major participant in the economy. As the nation's largest employer, it competes vigorously with private enterprise for workers in virtually every trade and profession, and accounts for a vast portion of the national payroll. With its agencies deeply involved in so many aspects of modern life, it consumes huge quantities of nearly every product available, virtually sponsoring entire industries, and exerting tremendous pressure on prices in nearly every market. As the supplier of public services, it maintains massive defense, police and other bureaucratic establishments, competes with private organizations in offering education, health care, insurance, finance and other services, and draws heavily on the nation's wealth to support its many diverse activities.

But perhaps government exercises its most far-reaching, though often subtle, influence on economic processes when it attempts to compensate for what are often seen as the shortcomings of the market system. One policy area the government has attempted to implement is some form of effective redistribution of income and wealth. However, the real impact of redistributing income has been somewhat questionable when income generated by the socio-economic groups at the top and bottom of the ladder are examined respectively over time.

Since the beginning of time, people have pondered the disparities in wealth and advantage between various individuals or groups; the question "Why does my neighbor have more than I?" is as old as society itself. Under the market system, the person with greater resources is able to purchase more and better goods, while the person with less is forced to make do with whatever is left. Increasingly, governments, and by implication the people who support them, have decided that such gaps in economic advantage should be narrowed. They have initiated various programs aimed at increasing the ability of people with limited resources to compete more sucessfully in the marketplace. These transfer payments (using the economists' term) shift resources from the more advantaged, in the form of taxes, to the less advantaged, in the form of direct payments, subsidies, vouchers, discounts, tax relief or loans (generally at low or no interest). This has the affect of improving the competitive position of those people who would otherwise be hardpressed to obtain the products they want and need.

Since transfer payments provide more people with the

means to purchase, and the people who receive them generally have a more pressing need to purchase, they tend to increase the quantity demanded, thus they may put additional upward pressure on prices, which has the effect of a "hidden cost" of the government's attempt to correct the economic problem of income disparity. Such costs are very real and must be paid by everyone participating in the market, even those people whom the transfer payments are intended to benefit.

There are hidden costs attached to all government intervention in market processes, though by no means are they exclusive with government. Product standards improve the quality of manufactured goods, but tend to increase production costs. Anti-trust laws stimulate competition and restrain monopolistic practices, but dilute the financial efficiencies of big company centralization. Health and safety regulations obviously improve working conditions, and even benefit employers by reducing the costs of insurance payments and lost man-hours due to accidents and illness, but they add overhead expenses that must be recovered in the prices of the goods and services being produced.

It is the consumer who often pays the costs of government intervention in economic life; and correcting problems in the market system is expensive. But not to act when problems occur is expensive too, in both human and natural resources. The effects of income disparity are the growth of poor classes, increased crime, political ferment and social unsettling. The effects of unenforced health and safety regulations are unfit working conditions, accidents, occupational diseases, deaths and general worker discontent. The effects of unrestrained business practices are trusts and monopolies, lowered product quality, price-fixing, accumulation of wealth and power by elite classes and disregard for public interests.

All such problems have their influences on the market system, though they might not be reflected directly in the market's pricing mechanism. In fact, it's necessary to look beyond price structure to determine the hidden costs of any production or consumption—to what economists refer to as the concept of *SPILLOVER EFFECT*.

The cost of producing an automobile is basically the sum total of all the parts and materials used in constructing the car, the cost of wages and benefits to the workers involved, certain fixed overhead expenses such as factory space, equipment and utilities, and perhaps design and development costs or the expenses involved in distributing the final product (a rough accounting, but one adequate

for this example). But there are hidden costs of this production, too. Perhaps the automobile factory emits huge volumes of smoke and soot, polluting the air, dirtying windows, discoloring buildings, and aggravating the medical conditions of people with lung diseases or severe allergies. These are effects that *"spill over"* from the process of manufacturing automobiles, that generate real costs which are not reflected in the auto company's production expenses, but that somebody will have to pay.

Likewise, the price of an automobile is basically all the expenses incurred in production, plus a percentage of profit for the manufacturer and dealer, perhaps some additional preparation or transportation charges, and taxes. But as with producing, there are hidden costs of consuming, too. A car is really "consumed," after all, by being driven; and as it's driven it emits exhaust fumes, adding to the air pollution caused by the auto factory. It adds to the volume of traffic, contributing to the need for roads, police, traffic signals and other equipment, and it might even be involved in an accident, generating expenses of repair or medical treatment for the driver and possibly several other people as well.

There are all kinds of hidden costs, or spillover effects, attached to all kinds of production and consumption. The price of a candy bar might be only ten cents, but if the consumer of the candy tosses the wrapper on the ground, litter is produced, which generates clean-up expenses for the local municipality. This generated expense isn't accounted for in the market transaction by which the candy is purchased, but it is real and it will effect other transactions — in the labor market for instance, when someone is hired to clean up the litter.

Of course, there are also positive spillover effects which create benefits beyond the immediate production or consumption of a product. If a family grows flowers on its front lawn, the various market transactions involved in producing and consuming the seeds register only the immediate consumption of that particular family. The benefit derived from the flowers could result in enjoyment to the household, neighbors and people traveling through the neighborhood. But keep in mind, the neighbors did not pay for the flowers. In addition, the household beautification program could result in increased property value.

Increasingly, government is attempting to moderate the spillover effects of both production and consumption and make the market system reflect hidden costs more accurately. Where other members of society absorb spillover costs, the government might act to require manufacturers to put emission controls on both its smoke stacks and the cars it

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manufactures to reduce air pollution, as well as to equip its cars with safety devices to reduce injuries in case of accidents. The market for autos will reflect the increased production costs incurred in these measures with higher prices to the consumer. The candy manufacturer might be compelled to collect a tax on the sale of its candy bars to cover the expenses of cleaning up carelessly discarded wrappers which will add to the cost of candy in the market.

Government can act in many ways to confront many problems in the market system, but (at the risk of overworking an important point) there is always a price to be paid for any intervention in economic processes, and ultimately it is the individual consumer who pays it, either directly or indirectly.

Regarding goods or services resulting in spillover benefits the government might be compelled to encourage increased production. Considering our future transportation problems, the government is encouraging mass transit systems through large subsidies. The cost of one education is largely subsidized by governmental funds because an educated citizenry results in benefits both to the individual and society. Thus, when spillover costs result, the government discourages production. However, when there are spillover benefits, the government encourages production.

Introduction to Activities

The activities may be approached from a variety of standpoints, however, the intent of the author was to structure the activities into three primary areas:

1. Scarcity—the purpose of this section is to illustrate that scarcity is fundamental to all societies.
2. Market System—how the market system answers the fundamental questions faced by all societies—What? How? For Whom?
3. Role of Government—the objective of this section is to raise questions as to when and how government should modify our political system.

Money Trouble

Although money is sometimes called "the root of all evil," money is also an important tool necessary in today's world. Money does more than provide the medium of exchange for the goods and services we may need or want. It is directly related to our level of living and our ambition for the future. Sometimes during one's lifetime, each one of us may reflect and wish if only I had managed my money more carefully I would not be in my present situation.

In considering the problems of money management, read the following cases of (1) Bill and Louise; (2) Ron and Marilyn.

Borrowing Trouble

More Consumers Find Their Debts Outpacing Their Ability to Pay

A Salesman Makes $40,000, Yet He Has to Retrench, And Wife Gets Two Jobs

The Plight of a Policeman

By DANFORTH W. AUSTIN
Staff Reporter of THE WALL STREET JOURNAL

CASE 1—Bill & Louise

DALLAS—A year ago at this time, Bill and Louise were on top of the world and climbing higher. The 27-year-old real-estate salesman's annual salary was approaching $40,000, and a franchise he held on the side promised more wealth soon. "We'd never seen that much money," Bill says. "It con-

vinced me that I was going to be a big entrepreneur."

So, with great expectations, the young couple set out to buy a chunk of the good life: a $60,000 home, a boat, new furniture, new clothes and what Bill calls his "toy," a Lincoln Continental complete with telephone.

That was last year. This year, Bill guesses he'll make about $40,000 again. But it is unlikely the couple will see much of the "good life." The house is up for sale, the boat is gone, much of the furniture has been repossessed, and the Lincoln has been replaced by a Toyota (without a telephone). Louise, meanwhile, has quit her college courses and now holds two jobs, one of which is the midnight to 7 a.m. stint at a local electronics plant. And Bill, who tells their story in exchange for anonymity, admits to occasional bouts of depression.

What happened to Bill and Louise is unusual. After all, they owe nearly $40,000. But their extreme plight points up a hardship shared by a growing number of consumers at all income levels these days: In varying degrees, their debts now outpace their ability to repay.

CASE 2—Ron & Marilyn

Take the case of Ron, a police officer in a Dallas suburb, and his wife, Marilyn. Right now, his monthly take-home pay, which includes Veterans Administration assistance for night-school classes, is about $900. Yet almost half that amount—$400 a month—goes toward repaying nearly $8,000 in installment debt rung up in the last several years.

How did they acquire that much debt? The couple tick off the answers: the death of a close relative, requiring expensive plane fare to the coast; furniture that fell apart within a year after purchase, leaving a $500 balance due plus the cost of cheaper, if sturdier, replacements; an illness that forced Marilyn to leave a $550-a-month sales job; some unexpected, and uninsured, major dental work; the birth of a daughter; and, among other things, an automobile with an annoying tendency to burn out valves.

"At one point last year, we thought we were caught up," says Ron, "but something else happened—I think the car broke down—and we went back under water."

After debt payments and expenditures for the basics—rent, utilities and food—Ron and Marilyn now have about $100 left to themselves every month. However, Marilyn says, "we had been able to spend about $35 a week on groceries, but with food prices up I'm afraid the increase is coming out of that $100."

End Case 2

Nor does the immediate future appear any too promising for couples like Ron and Marilyn or even wealthier folks like Bill and Louise. In a report entitled "The Erosion of Consumer Wealth," two Goldman, Sachs & Co. researchers, Robert M. Giordano and Richard B. Worley, found that "there is little reason to expect that the pressure on consumers' budgets and, therefore, on their ability to leverage themselves against the effects of inflation will be relieved in 1974."

But the rate of increase in installment debt is beginning to slacken. For instance, in March, total consumer installment debt rose an adjusted $617 million, less than the $671 million increase of February and sharply below the $2.04 billion rise of March 1973. These lower rates of increase are due partly to the automobile sales slump induced by the energy crisis. But experts believe that the softening figures may also indicate that many consumers have had enough and, in the words of the Goldman Sachs report, "are unwilling to further extend themselves."

There is also evidence that lenders are clamping down. Few banks are continuing to loosen up credit-granting procedures. Indeed, many of these institutions now say that in view of rising delinquencies, they're giving much closer scrutiny to would-be individual borrowers.

The Wall Street Journal, 6-4-74

Some Questions To Consider

Student Notes

1. Did these families live within their income? Give examples to support your position.

2. Did these families appear to be guilty of haphazard or impulsive spending?

3. Do you feel they could have spent their incomes more effectively?

4. Did either family appear to have an effective plan regarding present and future expenditures?

To Guide Your Reading

Franchise

Veteran's Administration Assistance

Installment Debt

Some Concluding Questions to Consider

1. What do you contend is the lowest level of income to maintain a minimum standard of living?

2. What policies would you recommend for people whose income falls below the minimum.

Land of Despair

Vignettes of Life in Bangdalesh Add Up to National Tragedy

The concept of scarcity can have a variety of meanings to different people. In the following exercise you will examine a society you have probably heard about or observed on your television screen. To many of these people the conflict between their wants and available goods may be a morsel of food to enable them to survive to the next day. The excerpts are from *The Wall Street Journal*, November 26 and 27, 1974.

The Nun's Tale

An Irish nun is visiting Bangladesh, staying at a Christian hostel in Dacca. On her second evening in the city, she steps outside for a breath of air and finds an emaciated baby deserted on the doorstep. She takes the baby in, feeds it, doctors it, bathes it, and then goes out searching for the mother, who is nowhere to be found.

The next morning the nun finds a second starving baby lying in the street in front of the hostel. So she takes the second baby in. Then she goes off to the local police station to report the missing babies and to seek advice.

That advice is to put the babies back in the street or, the police officer says, you will find four more babies tomorrow.

"What on earth am I to do?" the nun says later in the day. "Am I to put them out to starve?"

1. If you were the nun, what would you do? In considering your alternatives, consider the advantages and disadvantages.

2. Assume you were a social worker in Dacca; what recommendations would you make?

Student Notes

The Aid Official

He has spent much of his working life in Bangladesh, and perhaps for this reason—and because he likes the Bengalis — he searches for some signs of hope. Bangladesh, he says, might increase food production with high-yield rice strains; it has "cultural homogeneity" and physical compactness that make it "governable"; it has a resilience that comes from centuries of hardship.

'But the population thing," he says, "that population thing just blows your mind." He shakes his head slowly and adds: "Just imagine—230 million Bengalis in 30 years."

What about aid? he is asked.

"We have to keep giving it," he says. "Maybe it doesn't accomplish very much. Maybe it only postpones the inevitable. But if a man passes you on his way to getting hanged and he is thirsty, you still give him a drink, don't you?"

1. If you were responsible for future policy in Bangladesh, how would you direct future planning of production?

The Priest

He has been working in the villages of Bangladesh for more than a decade, and there is an intensity about him that conjures up visions of some medieval martyr.

Through a long, late evening, he talks of the misery he sees all about him, the worsening economic conditions, the widespread hunger in the villages, the seeming hopelessness of a nation with too many people and too little land or resources. At times, he is cynical: "A line was drawn around a slum, and it was proclaimed a nation." At times he is fatalistic: "These people are like their rice. Sometimes it bends with the winds, and sometimes it breaks. Sometimes it survives the floods and sometimes not."

At one point, he even asks: "To be realistic, does it really matter if a million Bengalis die? Would it matter more to train a dozen dedicated Bengalis who would go out to change the future?" He has great doubts about the value of relief aid, about the logic of "keeping people alive today so that their children can starve tomorrow." Like so many conversations in Bangladesh, it is both depressing and inconclusive.

Early the next morning, a messenger arrives from a nearby village. A child is dying, and the priest is needed. All the doubts of the previous night seem to be forgotten. It is an hour's hike to the village and

there, in a thatch hut, lies a girl of about 12, fevered, wasted, but still alive.

The girl is a Christian, and the priest kneels down on the mud floor to hear her confession and administer the last rites. The Latin ritual doesn't sound as out of place as it might seem. The priest then sees to the construction of a primitive litter, and two village men carry the child back to a small mission hospital.

It is noon when the priest returns to the mission. He has spent a half-day attending to one sick child when, in the same village, there are other children hungry and sick who almost surely will die in coming weeks —when, in Bangladesh, there are some millions of sick and hungry children.

"You do what you can," the priest says. "And that is all you can do."

1. How does he describe scarcity in Bangladesh?

2. What does he mean when he raises the question, "does it really matter if a million Bengalis die? Would it matter more to train a dozen dedicated Bengalis who would go out to change the future?"

The Civil Servant

Mr. A. is a senior civil servant. As such, he can recommend policies and he can try to carry out policies, but he cannot decide policy matters. That's up to the politicians. And Bengali politicians, more than most others, it seems, favor making no decision at all.

So Mr. A., who has seen a lot of recommendations ignored and a lot of plans shelved, conveys a sense of weariness and resignation. "Bangladesh was born under very unlucky stars," he says. "Our adversities come in battalions. Of course, we must make some unpopular economic decisions, but for a poor country, it is very hard to do so. If we were richer, we wouldn't reel under blows, but we already are tubercular, emaciated, exhausted. We are trying to do what we can, but the difficulties are too many. The road is bestrewn with thorns. What is that American song—'the road is rocky'? Paul Robeson sang it, didn't he? Yes, it is a cruel and rocky road for us."

1. The civil servant makes reference to unpopular economic decisions; what does he mean if we were only richer?

Student Notes

The Mad Bihari

She lives in a tiny three-walled mud hut in a refugee camp on the outskirts of Dacca. Every morning, dressed in only a tattered rag wound round her waist, she picks her way through the mud and filth of the camp and arrives at the office of the camp chairman. There she requests food for her three children.

And every morning the camp chairman refuses her request.

"I have no rations to give," says the chairman. "Of course," he adds, "she no longer has any children to feed. She had three children but they died last year because they had no food. Since then she is insane."

The mad woman is one of some 400,000 Biharis who still languish in refugee camps around Bangladesh. The Biharis are non-Bengali Muslims, originally from central India, who were a privileged minority here in pre-independence days and who generally supported the Pakistan army during the 1971 war. After the war some Biharis were massacred, but most were confined to camps to await some resolution of their fate. It is now three years later but little has been resolved.

The Biharis claim to be Pakistan citizens and demand to be "repatriated" to Pakistan. This is fine with the government of Bangladesh, which would like to be rid of them. Pakistan, for its part, has accepted about 120,000 Biharis refugees but does not accept the principle that Biharis are Pakistani; it refuses to take 400,000 more Biharis. The last thing any nation on the subcontinent needs is more poor people.

There is little chance for the Biharis here. Millions of Bengalis are seeking jobs and so there are almost none available to Biharis. "All we can do is beg," says the camp chairman, "but Dacca is full of Bengali beggars and we get nothing." International relief agencies initially provided food for Bihari camps, but foreign interest has dwindled, and the agencies now channel what aid they have to starving Bengalis.

So the Biharis sit and wait—and watch their children die of hunger and disease. "Should we be left to starve to death in these camps?" asks the chairman. "In whose hands lies our future? Whose? There must be some solution for us."

But there seems to be no solution at all to the problem of a pathetic minority in a pitiable land.

1. What appears to be the long run fate of the Biharis?

Student Notes

2. How does the plight of the Bihari differ from the other Bangladesh profiles?

To Guide Your Reading

Bangladesh

Resources

Rationing

Biharis

Evaluation

The evaluation could be associated with the original definition of scarcity. The student could fold the paper in half (narrow width); write their original definition, and then after completing the exercise, write their new definition on the other half of the paper. The students could then justify why they may have altered their conceptualization of scarcity.

Have-Nots in Revolt

Student Notes

As one examines today's society in America, one of our most perplexing problems is the unfair treatment of certain minority groups. Why do we have discrimination—Is it because of the inadequacies of the market system, or something more deeply entrenched in people's values that goes much beyond our economic system. The reading, "Have-Nots in Revolt" gives one perspective from a Black leader. After reading his summary, examine some questions following the reading and ask yourself to hypothesize some of the causes for Haves and Have-Nots in today's society.

A Black Leader Foresees an America With..

Have Nots in Revolt

IMAMU AMIRI BARAKA was born Leroi Jones in Newark, N.J., 40 years ago. He gained his reputation first as a jazz critic, then as a poet and playwright. *Dutchman* won the Obie as the best American play of the 1963-64 season. Soon after, his dramas turned darker, then became firmly antiwhite. His art became polemical and its message one of black separation, black liberation.

Baraka returned to Newark, where he was arrested during the 1967 rioting for illegally possessing two pistols. Convicted and sentenced to three years in prison, he was retried and acquitted. He became politically active in Newark and nationally as secretary-general of the National Black Political Convention and chairman of the Congress of Afrikan People. He recently astounded and angered some of his followers by coming out as a follower of Marx, Lenin, and Mao. Staff Writer Michael Putney recently met with Baraka at his Newark headquarters and talked with him about that turnabout and other things.

In 1968 the Kerner Commission predicted that America was headed toward two societies, one black and one white. Do you think that has happened? Or have we headed toward a society of haves and have-nots?

I think the latter. It *was* a society of white and black. But what I think the commission was trying to do was put the onus for the problem on racism. And that was really a trick because we believe that the onus is on the economic system. But we do feel that all the people in this country—the white people, the blacks, the Puerto Ricans, the Mexicans, the Indians, the Asiatics—all the people are finally going to be the ones to benefit from this total kind of society we see. We feel that when people talk about a pluralistic society that one day it is going to be a pluralistic society in the real sense where everybody will have the democratic right of self-determination.

You've been a black liberal, a black radical, a black separatist, and now you're into "scientific socialism" and what you call Marxist-Leninist-Mao Tse-tung thought. What is it?

Basically, it says this: Capitalism, because of its internal contradictions, will produce a class of people that will destroy it. Everything has contradictions, which is dialectics, and capitalism has one very profound kind of contradiction: The contradiction between the public nature of labor—that is, you have to use the masses to work—but the money that's made from the labor, the profit, is appropriated privately. And by a very few. The rest of us have to spend our lives laboring and we don't own anything. The only thing we own is our ability to work. And if you can't work, you're out of luck.

Well, how are the people whom you think are exploited going to

wrest some of the control and the profits from the system?

By revolution. That's the only certain way that socialism will come to our society. That is, when the masses of people, the great working mass which capitalism produces, property-less wage earners, and these are the very people who will destroy it. When these masses of people will no longer accept the system as it is and the system reaches a crisis where it can no longer govern as it used to, then that is the point at which revolution is made.

How close are we to being at that point?

I don't think we're very far. I don't think we can play the numbers game, but I think if you'll just go back 10 years ago to 1964 and run through your mind the kind of things that have happened since 1964—from Kennedy No. 1 to Kennedy No. 2 to Malcolm to Martin Luther King to Portuguese colonialism. And now you've got Portuguese Guinea, Mozambique, and Angola being liberated, Lyndon Johnson thrown out of office, Nixon thrown out of office, Rockefeller as Vice President. I mean, in 10 years we've had such a rapid-fire succession of events that 25 years in this particular epic that we're in is going to see huge changes throughout the world.

The National Observer, 3-15-75

Some Questions To Consider

Student Notes

1. What do you think Baraka means when he contends the problem of a society of "haves and have-nots" is not because of racism, but the economic system?

2. Consider two hypothetical situations looking for summer employment:

   (1) You are black, 20 years old, no special technical skills, graduated in top 10% of class, participated in football, basketball and track, finished one year of college.

   (2) You are white, 20 years old, same in every respect as above.

   If you were an employer for the summer recreational program, which one of the above individuals would you hire, and explain why?

3. Consider both individuals graduate from law school with honors, which one would most likely succeed? Will one's probable success be due to the economic system or factors unrelated to the market system?

Student Notes

EXAMINE TABLE 1

TABLE 1

Percent of Income Received by Each Fifth and Top 5 Percent of Families in Selected Years, 1950-70

Quintile of families	*1950*	*1955*	*1960*	*1965*	*1970*
Lowest fifth	4.5%	4.8%	4.9%	5.3%	5.5%
Second fifth	12.0	12.2	12.0	12.1	12.0
Third fifth	17.4	17.7	17.6	17.7	17.4
Fourth fifth	23.5	23.7	23.6	23.7	23.5
Highest fifth	42.6	41.6	42.0	41.3	41.6
	100.0%	100.0%	100.0%	100.0%	100.0%
Top 5 percent	17.0%	16.8%	16.8%	15.8%	14.4%

Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1972*, p. 324.

1. Considering the people represented on lowest fifth quintile, what would be some general characteristics of these people?

2. Considering the data in Table 1, and the reading, how would you summarize the current problems of the "Have-Nots?" What factors may contribute to some individuals being locked into low income employment?

3. If you were a policy maker, would you consider the alternative of revolution or some other means to elevate the standard of living of the have-nots?

To Guide Your Reading

Polemical

Kerner Commission

Capitalism

Dialectics

Evaluation

Student Notes

TABLE 2

Median Family Income

Year	White	Black	Ratio of Black to White
1947	$3157	$1614	51%
1952	$4114	$2338	57%
1958	$5300	$2711	51%
1960	$5835	$3233	55%
1961	$5981	$3191	53%
1965	$7251	$3886	54%
1969	$9794	$5999	61%
1971	$10,236	$6279	61%

Source: U.S. Bureau of the Census, *Current Population Reports, Population Characteristics*, Series P-20, No. 204. Washington, D.C.: Government Printing Office, 1970, p 4. Data for 1971 from *Monthly Review*, Federal Reserve Bank of Richmond, October 1971.

1. Examining Table 2, summarize the general trend regarding the relative incomes of whites and blacks from 1947-1971.

2. Why is the level of unemployment for blacks always approximately double the level for whites, regardless of recession or prosperity?

The Wooden Dilemma

Student Notes

Who is it that sets the prices we pay for something? Why are some things expensive and other things cheap? Even worse why is it that usually the things we want are the most expensive, and the things we don't want or need, the cheapest?

In this lesson you will be playing a game that might help you understand something about how prices are determined. Your class will be divided into two groups, buyers and sellers, and you will play the game together. The game will have two winners. One buyer will be a winner and one seller will be a winner.

Rules

1. Sellers will have white instruction cards:

> SELLERS' CARD
>
> You are selling one cord of firewood. Try to obtain the highest price possible. Do not accept less than $..... cord.

2. Buyers will have blue instruction cards:

> BUYERS' CARD
>
> You are buying one cord of firewood. Try to obtain the lowest Price possible. Do not purchase for more than $..... cord.

3. Sellers and buyers should not discuss their instructions with anyone else playing the game.
4. A transaction is completed when a single seller and a

Student Notes

single buyer agree on terms of the sale. (ALL SALES MUST BE FOR ONE CORD AT PRICES ROUNDED OFF TO NEAREST $1.00).

5. As soon as your transaction is completed, you should turn your buy/sell order over to the student at the board and receive a new one and attempt to make another transaction.
6. If you have not made a transaction in three minutes, you may turn in your slip and negotiate another transaction.
7. A one minute warning will be given before the market is closed.
8. Each buyer will be required to make five transactions to heat his home for the entire winter.

To Guide Your Reading

Cord

Absconding

Forester

Some Questions to Consider

1. What has happened to the supply of firewood?
2. What economic conditions have caused this?
3. What action has been taken by the Forest Service?
4. What particular problems are they facing in implementing their program?

WOODEN REACTION

. . . Search for fireplace logs heats up.

By Stan Federman
FROM PORTLAND, ORE.

Here in Oregon a wood panic is in full swing.

Amid headlines about incipient fuel shortages and amid record low temperatures in the first week of November, Oregonians have cleaned out most firewood dealers and many housholds are themselves lumbering the forests—sometimes illegally.

Albina Fuel Co., a major Portland-area fuel supplier, has stopped taking any more firewood orders. "We've sold more of it in the last two months than we did all last year," says Clifford Arnston, the firm's owner.

Other Portland fuel firms also report short supplies, high prices ($37 a cord for slab wood, almost double last year's figure), and the possibility there won't be any firewood available by Christmas.

"It's panicsville," says one local dealer. "Hell, I don't even answer the phones any more. I ran out of wood two weeks ago."

The same kind of concern is sweeping Americans in many other states too. In Washington, D.C., Forest Service officials said numbers of requests for wood-cutting permits are up substantially in many of the nation's 155 national forests. Sales of wood-burning stoves are up sharply too in some areas.

In Oregon, Mount Hood National Forest officials report that they are issuing wood-cutting permits "like they're going out of style." Foresters in other national forests in the state say firewood-cutting activity is almost 10 times normal.

"Taking more than their share of the right kinds of wood is really a problem," says Joseph Astleford, timber-management

Energy Crunch

assistant at the ZigZag Ranger Station. The station, in the heart of Mount Hood National Forest has been swamped with requests for wood cutting permits. But he adds that just as many people ignore the law, simply go into the forest and chop down their firewood anyplace they can find it.

Forest Service permits allow people to cut 20 cords of fallen wood. The permits are usually offered in acres that have been logged over and where the Forest Service would have to burn the fallen timber were it not given away.

"The problem for us," says Astleford, "is that peope are coming back into the woods three and four times for wood. Normally, an average pickup load, which is a third of what their permit allows them, has been sufficient for people in the past. No more. Now they not only take out the full 20 cords—but often a lot more. Too much more."

At road blocks, foresters, state police, and the Clackamas County sheriff also have caught many people absconding with such wood as cedar, which is too valuable for the Forest Service to issue cutting permits for.

The National Observer, 12-1-73

So What's Valuable

Student Notes

Sometimes when your parents tell you to get rid of all the junk in your room they might be talking about some very valuable things. The problem is they just don't understand how valuable these things are. Also why should your parents complain when they themselves keep so much junk around.

The problem here is that the only difference between junk and valuable things is that somebody wants it. In the article that follows you will see how junk has become very valuable. Things that people used to just throw out they now collect and get money for. Once again we are talking about our old friend demand.

Cash for Trash

As Scrap Values Soar, All Sorts Of People Start Collecting and Selling What Used to Be Garbage

By BILL HIERONYMUS
Staff Reporter of THE WALL STREET JOURNAL

One day last fall, handyman Robert Cockerl was driving through a residential neighborhood in Hempstead, N.Y., when he spied some old newspapers tied in bundles and sitting on a curb. "I saw the newspapers out there and thought that I'd pick them up to earn a little extra money," Mr. Cockerl says.

So he picked up the newspapers. And then Mr. Cockerl was picked up—by the police.

Mr. Cockerl says he didn't know it, but a week before his arrest the town of Hempstead on Long Island began enforcing an ordinance making any newspapers left along the curbside town property. It seems both the town and Mr. Cockerl had the same idea: to earn some cash by selling some trash.

A year ago, scavengers like Mr. Cockerl would hardly have faced this kind of competition from the authorities. In the last few months, however, the price of wastepaper has risen so high that yesterday's headlines are suddenly worth fighting over. Prices of scrap metal are also leaping to new heights. The result is that a horde of would-be junkmen—from private citizens, to big companies, to local governments—is invading the garbage market.

"It isn't charity or ecology any more, says

Art Vasquez, a waste paper dealer in Glendale, Calif. "It's money."

Slimmer Papers, Less to Recycle

Reasons for the surging prices boil down to plain supply and demand. Last summer, strikes closed Canadian newsprint mills, and many newspapers are still printing slimmer editions because of those labor troubles. That means their readers don't have as much to throw out, which means there is a shortage of old newspapers. Demand for scrap metal, especially steel, is up because production is booming. And increasing exports of both paper and metal don't help matters at home. (Garden State Paper, the country's biggest newsprint recycler, says its supplies are being "raided" by Asian dealers. Its inventories are down to just 2,000 tons from a normal level of 30,000 tons.)

The number of people willing to part with their garbage for nothing seems to be getting lower as the prices get higher. Explorer Post 747 in Berea, Ohio, for example, was collecting 150,000 pounds of paper for recycling during the winter months until prices jumped. Now the post is averaging 100,000 pounds of paper. And to get it, says adviser LaMar Willams, "we have to work harder."

Even some community-spirited recyclers are taking note of the profit potential. Art Vasquez says collection drives bringing paper to his AAA Paper Stock Corp. used to be pushed mostly by charities and environmentalists. Lately, he says, some of the same people are coming in "selling for their own pocketbooks."

Individuals who aren't doing to well in their own work are finding that garbage offers a fresh allure. Lawrence I. Holtzworth, a Burbank, Calif., aerospace engineer who is about to be laid off by Lockheed Aircraft is hoping to stay financially afloat by collecting waste paper. He has aready tried the water and found he can gross $150 working by himself on weekends. "I figure I can do okay when I go into it full-time," he says.

The housing business was going soft for John R. Riley, a prosperous contractor in Rittman, Ohio, a farming and factory town near Akron. So Mr. Riley tried branching out into the waste paper line. He is selling at fancy prices to nearby Packaging Corp. of America, a container maker. And while his housing interests continue to lose steam, Mr. Riley says, his paper business "has been growing from one day to the next."

Companies also are beginning to see a profit in the paper they've been tossing out. "I'm getting calls every day from big companies that want to know how to prepare their paper for sale," says Maurice Weiskopf, a paper dealer in Cleveland. Adds Clement Cody, owner of a Cleveland distributor of paper balers and compactors: "It's a seller's market. I could ship 50 of these machines a day or more, if I could get them myself."

(Some concerns are feeling pressure to retrieve waste paper from their packaging suppliers, who would like to increase supplies and lower prices. "The paper companies are implying a nice way that if we don't save our waste paper, we aren't going to be able to get paper from them," says D. L. Phillips, a purchaser at Owens-Corning Fiberglas Corp.'s facility in Newark, Ohio. The plant recently ordered a machine to bale wastepaper.)

The Most Abundant Product

Local governments are cashing in on high scrap prices, too. The sale of their most abundant civic product—garbage—is enriching their coffers and also helping to preserve shrinking landfill space. The Environmental Protection Agency's Resource Recovery Division says 75 cities are in one way or another deriving some revenue from other citizens' discarded newspapers. Less than two years ago, the agency says, only three cities had similar programs.

"We're talking about adding $150,000 annually to San Diego's revenues," says Terry Flynn, public works director for the city. In January, San Diego adopted a program, similar to others around the country, that requires private paper dealers to bid for the right to collect newspaper from residential neighborhoods. The city, meanwhile, is urging people to bundle up their papers for the pickups.

In St. Louis, the high price of scrap metal has turned towing abandoned cars to the junkyard from a sanitation chore into a profitable enterprise. A towing company is paying the city for the privilege of carting off the wrecks. "We've made $50,000 from the cars we've had picked up since September," says Walter Abell, an assistant to the director of street operations.

Cities and localities do have a problem, though, with scavengers and vandals who break laws to get at the junk before the government does, or who just steal things that aren't junk at all to sell as scrap. Half of the abandoned cars in St. Louis are being snatched up by scavengers in violation of a local law similar to the one in Hempstead that bars people from taking bundled newspapers. In Cleveland, there has been a spate of missing manhole covers since a local newspaper mentioned that they could bring $5 each as scrap.

Rural areas aren't immune either. One night recently, somebody cut down copper wires from the utility poles that run through farmer Stirton Oman Sr.'s pasture near Brentwood, Tenn. The copper thief knocked down some live wires in the process, and some of Mr. Oman's catte wandered over to sniff the downed lines. Nineteen of the animals were electrocuted.

The Wall Street Journal, 1-31-74

Reading on Scrap Values

Student Notes

One of the things the market system does is determine how much something is ..... What will people pay for something? In the article you read where a paper dealer refers to waste paper as ..... he really didn't mean that you could spend it. He meant that waste paper has become so valuable that people will pay (or exchange) money for it.

The reason for this increase in value is the relationship between supply and ..... As mentioned in the reading, people just don't have as much paper. The problem is that your local newspaper has probably been getting thinner in the past year or so and this means you have less of it to throw away.

When the supply of old newspapers was large the demand seemed low in relation to this supply. Waste paper was cheap and it was called junk. Now that the supply of old waste paper is ..... (and demand is increasing) the price ..... and we think of it as being valuable.

An interesting point is that communities and companies that never paid much attention to what they threw away are now concerned about saving waste paper and other things.

The article you just read also talks about junk cars and how the price of scrap metal has gone up. It used to be that no one was interested in abandoned cars but now that the price of scrap metal is higher people now have incentive to salvage old cars.

One lesson we might learn from all of this is that low prices encourage waste. If paper, and scrap metal, have low prices then few people are very concerned about wasting them. If the cost of these products increases, people would be less likely to waste things.

The point is that it is how much people are willing to pay for something that determines how ..... it is. If there is only a limited supply of something and a lot of people want it then it will cost a lot and people will call it valuable. If no one wants it, it may ..... in value. The

Student Notes

price of an item would ..... if supply remained the same, but may not change if supply increased.

The article you read mentioned junk cars. When scrap metal prices were ..... the cars would just lie in the street where people abandoned them. The sanitation department picked them up just because it was their job. Now the price people are willing to pay for scrap metal has gone .... As a result people will pay the city for the privilege of collecting the junk cars. In fact in one city it is against the law to pick up junk cars without city approval. This junk has become so ..... that people are willing to break the law to get it. The demand has increased while the supply has probably remained ..... Consider how other items which litter the street might be corrected.

As you think back through the lessons in this booklet remember what you learned about the interaction of buyers and sellers. This interchange is what determines the price at which something is sold. You can sell something for what someone is willing to pay for it. If there is only a little bit around, and a lot of people want it, then you can get a ..... price. This works with almost anything whether it is junk cars, eggs, or even illegal drugs.

The Egg Problem

Student Notes

People often change their minds about how to spend their money. If a lot of people decide to start buying what you make then everything is O.K. If the public decides they do not like what you have then there is a problem. It could mean that you will go out of business.

The big question has always been how to get people to buy certain things when they might not buy them on their own. Advertisers call it keeping people informed about what choices are available. Critics of advertising call it a manipulation of the buyer. These critics argue that advertising is a way of getting people to buy things they really do not need. The advertising companies say they are just informing the buyer of a wide range of possible decisions.

Either way we are talking about a thing which changes the demand situation. The idea is to get people to buy Widgets instead of Gidgets—if you own the Widget factory. If you own the Gidget Company then you want the opposite.

In the article that follows you will read about how people have stopped buying eggs. Not a good situation if your business is producing eggs.

Commodities

Egg Producers Are Raising Funds to Combat Sagging Demand and the 'Cholesterol Scare'

By EUGENE SOSKELLS
Staff Reporter of THE WALL STREET JOURNAL

CHICAGO—Any egg jokes comedian George Gobel serves up at the egg industry's "million dollar banquet" in Atlanta tonight might be taken with a grain of salt. Producers are increasingly sensitive about the subject, it seems, as they face a continuing decline in demand for their product.

That's why egg producers from all over the country are shelling out $2,500 a plate for tonight's affair. The drop in egg consumption has reached the crisis point, producers say, and they're hoping to raise $1 million tonight to be used this year to try to reverse the slide. If this and other fund-raising activities succeed, the producers say, they will have at least $3 million to spend this year to defend the egg.

Recent Agriculture Department statistics bear out the industry's plight. Last year, U.S. egg consumption fell to an estimated 292 a person, a drop of 5% from 1972 and the lowest per-capita consumption since 1936. Last year's rate was 27% below the record 403 eggs per capita consumed in 1945.

Americans are buying fewer eggs partly because of changed eating habits. They are skipping or scrimping at breakfast, a traditionally egg-oriented meal. But the decline steepened in the late 1960s as publicly linked cholesterol, contained in eggs and other foods, to heart disease. Last year's drop also was due in part to cutbacks by egg farmers whose prices were indirectly frozen by price controls last summer. The industry, however, regards the "cholesterol scare" as it greatest threat.

To be sure, the industry has other problems, one of which may soon be in evidence again. That's the overproduction that invariably follows high egg prices. Large white eggs are selling for 76 cents a dozen wholesale in New York, up from 52 cents a year ago. Depending on their efficiency, producers are making a profit of between 12 and 20 cents a dozen, industry analysts estimate. Farmers' receipts jumped to nearly $3 billion in 1973 from $1.8 billion in 1972.

Profits like these are encouraging egg farmers to increase their laying flocks. This, along with the normal spring rise in production, could cause prices to fall as much as 25 cents a dozen by May, one observer says. If that happens, the present handsome profits will be wiped out, and industry leaders again may begin recommending stern measures, such as mandatory flock culling, to trim output. Such pleas for unified action have met with only mixed success in the past.

But nothing has unified egg producers as the prolonged consumption slide has and, in particular, the cholesterol issue. "I think they realize they're battling for their economic lives," says one observer.

The industry will fight back with a massive promotion campaign aimed at polishing the egg's image. The sales pitch will attempt to mollify consumers fears about cholesterol in eggs, and will aso stress the product's nutrition and economy, says Gene C. Masters, an official of United Egg Producers, a big Atlanta-based cooperative. "Maybe in the next five to 10 years we can slow the downward trend in consumption and possibly turn it around," Mr. Masters says.

The publicity campaign already has started with a series of newspaper advertisements, one of which features "the 'sexy' egg," by noting that "cholesterol is the building block of sex hormones." The industry also is distributing free information booklets designed, among other things, "to disprove the myth that limiting egg consumption can reduce the risk of heart disease."

The Wall Street Journal, 1-28-74

To Guide Your Reading

Cholesterol

Mollify

Overproduction

Receipts

Flock culling

Some Questions to Consider

1. What has happened to the amount of eggs people eat?
2. Why has this happened?
3. Are the egg producers cutting back on the number of eggs produced?
4. Why not?
5. Are the egg producers unified?

Getting Enough Gasoline

Student Notes

We are now living in a period of shortages. First one thing and then another. It seems that we are always running out of something. About a year ago we couldn't get enough meat. Next we ran out of gasoline. Lines over a mile long became common. The problem is really one of supply. What is the best way to manage a limited supply? Do we just let the price go sky high and in this way force people to conserve things? Or, do we have the government step in and make up some rules so that everybody gets the same amount? No one is quite certain but the two readings which follow explain these two different viewpoints. In the reading that follows the author wants a free market solution. That is, just let the price go higher if the supply stays the same, or goes down, and the demand for gasoline stays the same.

A Bizarre Solution

The good chance that Mr. Nixon's voluntary conservation program won't save enough energy to get through the winter has some of his advisers frantically searching for a solution.

Some in the White House favor rationing, and warn that it may be here by January 1. Others, who recognize that peacetime rationing would turn into a catastrophic mess, prefer to slap on a federal surtax to drive up the price of fuel and cut into demand.

While intriguing, this approach has some problems of its own. First nobody knows exactly what the surtax should be. If it's too small, it won't do the job. If it's too big, it would not only incite general inflation, but also disrupt general patterns of commerce beyond need. John Love's offhand guess that 30 cents a gallon would do the trick stands a 99.9% chance of being wrong on the high or low side.

Additionally, there is the revenue problem. A penny-a-gallon surtax yields roughly $1 billion in federal revenues. A 30-cent surtax would yield something less than $30 billion. Clearly, the government can't take that much money out of the economy without sending it into a tailspin. Siphoning even $10 billion out of the economy with a dime surtax would spell certain recession for 1974.

Congress could get this cash into the mainstream by raising Social Security benefits again, which after all have only been boosted 50% in the last three years. But a more prudent allocation would be to provide these surplus funds to the problem at hand. Use, say, half the money at hand. mass transit, bail out the bankrupt railroads, etc. And give the other half to the oil companies on the understanding that the companies will develop new energy sources, build new refinery capacity, and set up costly exploration projects. This approach has a certain clumsiness that gives us pause.

So there's reason to look at the absolutely bizarre scheme designed by Milton Friedman, the well-known economist. Mr. Friedman suggests what appears to be a simple, flawless plan that for some reason has not occurred to anyone in Washington. He thinks the government should let the price of fuel rise until the marketplace figures out, to the tenth of a penny, exactly where supply meets demand.

The oil companies would indeed make big profits, which would mean they would have no reason to come to government for the capital they require for developing new energy sources, building new refinery capacity, and stepping up costly exploration. In fact, Congress could wipe the oil-depletion allowance from the books. Profit pure and simple would be incentive enough to get the petroleum industry racing every which way to find oil. If Congress, in its wisdom, also decontrolled natural gas prices, it would have to jump out of the way or be trampled by the competitive forces it would unleash.

It should not be forgotten that the Friedman plan would not only put profit in industry's pocket. Half of the increased revenues would be paid to the Treasury in the form of corporate income taxes. Congress would not have to pass a surtax to get new money for mass transit, bailing out the bankrupt railroads, etc. The oil companies will be happy to collect this money and turn it over to the government.

Granted it's a radical plan. But it appears so straightforward and simple compared to the alternatives there's no reason it should not be at least considered. It could be just the thing. The American economy is so resilent, so flexible that we believe it might even adjust to a free-market system, bizarre as that might seem.

Editorial, The Wall Street Journal, 11-14-73

To Guide Your Reading

Surtax

Revenue

Capital

Resilient

Bankrupt

Some Questions to Consider

1. What will happen to the price of fuel if a surtax is levied?
2. What will happen to the demand for fuel?
3. What suggestion is offered by Mr. Friedman?
4. Allowing the market place to "figure it out" describes what type of economic system?
5. Does the editorial approve or disapprove of Mr. Friedman's plan?

The Case for Rationing

Student Notes

In the article that follows Professor Heller suggests that the government ought to devise a rationing system so that everybody gets the same amount of gasoline. This involves the government controlling the supply so that everybody gets his fair share. It is quite different from the other article you read.

"The Case for Gasoline Rationing"

By WALTER W. HELLER
(Modified for Materials)

The current debate over gasoline rationing versus huge price or tax increases is beclouded by neglect of one simple fact: that the price increases required to match supply and demand in the short run are vastly greater than those required to do the job in the long run.

In the short run—say, in a few months to a year or so—even vast price run-ups won't suck a great deal more oil out of the earth. But estimates by Houghakker and Verleger suggest that "the long-run elasticity of supply of petroleum may be as high as 1.0." That is, a 10% rise in price would lead to a 10% increase in domestic output.

Similarly, on the demand side, studies indicate that, in the short run, a price rise of 10% would cut gasoline demand about 2% to 2.5%. But in the long run—that is, after an adjustment period of two to three years—the estimated cutback would be about thee times as large. The inference is clear: to cope with today's Arab oil crisis, a huge price jump would be needed. To cope with our chronic energy problem calls for a much more modest rise.

How to bridge the gap? Gasoline rationing is the instrument of choice for the transition. Even with its well-known defects, its advantages over massive price increases for the short run seem compelling. If we simply let prices run to the heights that will clear today's market, they will not only rise far above the long-run equilibrium level, but generate unconscionable profits—in the tens of billions of dollars—for the petroleum industry.

The price solution does not avoid the disruptive effects of skyrocketing prices today and skidding prices after the transition.

The all-out price solution, would sharply increase the risks of putting the price-wage spiral back into orbit.

In other words, if we are seeking reasonable certainty—a commodity in considerably shorter supply today than gasoline—rationing is the way to get it: certainty for the government in achieving the desired cutback in gasoline use and certainty for the consumer in getting a basic allotment of gasoline without paying ransom.

In addition, if we adopt a simple and swift rationing system, using either negotiable coupons or a basic ration plus coupons auctioned by the government, the level of the auction price could tell us a lot about the changing degree of supply-demand imbalance. As the price drops, it would give us automatic signals for the phase-out rationing.

As a transitional device, then, rationing wins out on its merits over the alternatives of savage price or tax increases. What makes the case well nigh conclusive are three interrelated political facts of life:

—The Public preference for rationing is overwhelming. The Harris Poll shows a 71-21 acceptance ratio for rationing and a 78-17 rejection ratio for gasoline tax increases.

—Speed is of the essence, and power to ration is about to be put into the President's hands. A simplified coupon system could go into effect in weeks.

But how do we answer if Simon says, implicitly or explicitly, "Who needs it?" Who needs rationing when rising prices, voluntary and compulsory curbs on petroleum use, and a toughened system of allocations and guided price changes are already working to balance supply and demand?

Broadly, the answer is that the policy to date runs enormous risks of failing to suppress wasteful and nonessential uses of energy enough to safeguard the vital uses that nourish employment, production and income.

The Wall Street Journal, 12-21-73

To Guide Your Reading

Rationing
Equilibrium
Transition
Commodity
Allotment
Scarcity

Some Questions to Consider

1. What is the difference between short run and long run?
2. Did people want rationing when this was written?
3. Did we ever do what the author of this reading suggested?

The Coming Crisis:

The Specter of World Famine

One of the primary difficulties with social science education is the inability to examine present problems, to analyze them, and to project future implications. This complacency of mankind, especially in the western world, was most recently illustrated in the gasoline shortage of 1973-74. Warnings of future energy shortages were heard several years ago, but fell on deaf ears as we merrily moved ahead assuming our technology would solve all problems. Suddenly, the carefree world of cheap gasoline, heating oil and natural gas in the United States became a thing of the past. Although there appears to be a temporary respite with the problem of energy, the question must be raised, "Have we learned our lesson?"

Another crisis appearing on the horizon is a possible universal famine. Although there have been many doomsday prophets throughout the history of mankind, Reverend Thomas Malthus, a 19th century English economist, feared that the ever enlarging demands of growing numbers of mouths to feed could not be fulfilled with existing farming resources. Although, there are many present day prophets of doom, many of the more recent forecasters of pessimism are really reincarnations of the Thomas Robert Malthus speaking through a computer. The study, *Limits to Growth*, supported by the Club of Rome, is really an updated version of Malthus' earlier wok. Even though the Reverend made many contributions to economics, he is primarally remembered today for his gloomy analysis of population trends. He contended in the absence of moral restraint, population will outstrip the available means of subsistance. The following article may provide some background information regarding our present food crisis.

Student Notes

Reflection Questions on the Reading

After reading the article, "The Next Crisis: Universal Famine", consider the world in two sections, the industrial and underdeveloped. Why have the underdeveloped countries continued to experience critical food shortages?

With famines being predicted and actually occurring in different parts of Africa and Asia, what do you believe the future role of the United States should be regarding food production and distribution?

Some Questions To Consider

1. Although the U.S. has had large grain surpluses in the past, two reasons are givin why the reserves have dwindled to nothing.

2. Lester Brown, a former Agriculture Department official, states, "Americans might have to eat less meat a year from now or watch people starve to death on the TV news." What policies would you recommend to encourage Americans to consume less meat?

3. After the Russian wheat deal several years ago, wheat prices tripled within a year. Why?

4. When considering the price of foodstuffs, where competition becomes increasingly intense, explain why the poor carry the heaviest burden.

5. Prices have risen 9% for sirloin steak, 28% for hamburger, 103% for rice and 123% for beans over the last years. Why did prices progressively go upward with the less desirable foods?

To Guide Your Reading

1. Catastrophic

2. "Green Revolution"

3. Ranchos

The Next Crisis: Universal Famine

Glum Food Experts Fear Short U.S. Supplies, Global Starvation As Surpluses Dwindle, Prices Soar

A catastrophic world famine has suddenly become possible again. The prospect of widespread starvation has had more serious political and scientific attention in recent months than it has received in years. This time the doomsayers aren't just talking again about squalor in India, but also about shortages, high prices, and maybe even food rationing in the United States.

"The age of famine is already upon us," says James MacCracken, who directs the Church World Service and gets pessimistic feedback from many of the 40 countries where his private relief organization is trying to improve food and health conditions. "It is not unlikely that, about a year from now, political leaders may have to ask the American people to do the equivalent, in food, of turning down the thermostat several degrees," says Lester R. Brown, a former Agriculture Department official who had a reputation as a food supply optimist a few years ago.

"In any year from now forward, India and Bangladesh could lose as many as 100 million people to famine," says R. G. Anderson, a plant scientist. He helped create the "green revolution" in food-growing techniques that Brown and others hailed a short time ago as a way to stave off just such famines.

World food production has risen slightly faster than population over the last couple of decades, but the new concern is more than the traditional fear that birth rates will outstrip harvests. It stems from two major changes in the world's food supply and eating habits.

No More Surpluses

First, the enormous American agricultural surplus that used to prevent famines elsewhere has entirely vanished. The last grains of wheat or oats or whatever were sold off from Government bins last summer. The 50 million acres of untilled American farmland that used to backstop that surplus have also evaporated. The Government no longer pays farmers to keep land idle, and most of that "extra" land is back in production.

Second, the rich nations' rising appetite for meat is pricing basic food supplies beyond the reach of poor people. Grain production has to grow much more rapidly than population now because rich nations buy up more and more to feed to pigs and cattle. "From some viewpoints you can look at the situation as the poor man's grain being siphoned off to feed the rich man's cow," says director Max Milner of the United Nations' Protein Advisory Group.

The U.S. Food Basket

"The parallels between the food situation and the energy situation are much closer than most people realize," says Nevin Scrimshaw, professor of nutrition at the Massachusetts Institute of Technology. A basic difference between the food and the oil shortages, however, is that Americans are the Arabs of the world food supply. The United States exports almost as much wheat and more corn and soybeans than all the rest of the world put together. It even exports more rice than any other nation.

"The choice that will come if there is a drought in North America," says Scrimshaw, "is whether you deliberately make a decision to let some countries starve or deliberately cut back on our use [of grain] to share it with the rest of the world." Even without a drought, says Brown, Americans might have to eat less meat a year from

now or "watch people starve to death on the TV news."

Competing for Grain

The world fell suddenly into this fix in 1972, when world-wide harvests declined for the first time since World War II. It was only a small decline, 3 or 4 per cent, but it was made worse as rich countries competed in the market place for grain to feed the animals to slake the nations' growing taste for meat. It takes about five times as much grain to produce a high-meat diet as one that relies mostly on cereals.

Thus the Soviet Union, which had always pulled in its consumers' belts to get through previous lean years, chose instead to follow other affluent countries and import grain to make up for its own poor harvest. The Soviets imported more food in 1973 than any country ever has in history. When the dust settled, the American surplus was gone and wheat prices had tripled to more than $5 per bushel.

"Five-dollars-a-bushel wheat . . . over a long period of time does mean that really tens of millions of people are going to die an earlier death by malnutrition," said James P. Grant, president of the Overseas Development Council.

Last year was a bumper-crop year for most of the world, but growing populations and a growing taste for meat consumed the entire harvest. The price stayed high and again there was no surplus. The world's grain reserve continued to shrink. President John Knowles of the Rockefeller Foundation warned last month that projected 1974 reserves are enough to feed the world for only 29 days. Four years ago there was a 69-day supply. It has shrunk from 95 days in 1961.

Competition Creates Scarcity

For some people, then, diets have become worse in spite of the bumper 1973 harvest. And for the first time, Americans are forced to compete with foreigners for scarce food.

Thus the Russian wheat purchases drove world prices up far above what the hungry masses in India can afford. But they also drove up the price in the United States and made wheat so scarce that American bakers say we may have a temporary bread shortage this summer. And thus wealthy Japanese can compete with ordinary Americans for scarce meat, paying $5.35 per pound in Tokyo butcher shops for U.S.-raised rib-eye steak, while the Americans who packaged it eat hamburger.

The Americans in turn compete with poorer Guatemalans for beef raised on their ranchos. Scrimshaw says beef production is increasing in Central America, but beef eating is declining there because American consumers outbid the natives.

This price competition falls heavily on the poor, in this country as well as over seas. The wealthy can compete for the poor man's food; the poor man cannot compete at all.

Pressures on the Poor

Thus a steak-eating American who is put off by last year's 9 per cent rise in the price of sirloin can still step down to hot dogs and hamburgers. But people who were already eating hot dogs and hamburgers face price increases of 34 and 28 per cent, respectively, for these kinds of meat. If they step down to a poor man's diet of rice and beans they put unbearable pressure on people who already had to depend on those foods. The price of rice rose 103 per cent last year; beans went up 123 per cent.

"I hazard the guess that most of that malnutrition was due to ignorance rather than economics," Milner says of the 1960's discovery that many Americans were undernourished in a land of plenty. "There were low-cost sources of food if poor people knew how to use and prepare them."

"But now I think we have reached a point where [American] poor people, even if they understand how to buy nutritious foods at the lowest prices, are still going to be in difficulty."

Indeed, after eating more and more beef for decades, the average American cut his beef consumption last year to 109 pounds from 116 in 1972. His ration of pork fell to 61.5 pounds from 67.

Against this background of high prices, short supplies, and the evaporation of surplus Government food stocks, the prospect of even a minor crop failure scares the daylights out of politicians and food experts.

"For the next year or so we'll be skating on very thin ice," says Ambassador Edwin Martin, who is coordinating the American position for a world food conference the United Nations has called for November at the suggestion of Henry Kissinger. "It isn't a sure thing that there will be a crisis in the fall, but we'll have to have a lot of things going for us to avoid one."

But the energy crisis means we won't have everything going for us. Fertilizer prices have doubled or tripled in the past year or so. The governor of Nebraska says there is a 15 to 23 per cent shortage in his state. The expected shortage of fertilizer in India this year may be deep enough to slash food supplies by the amount needed to feed 25 million people. Even if India had enough fertilizer and good weather, this year's crop is only expected to match that of 1971, when India had 40 million fewer mouths to feed.

The National Observer, 3-30-74
(Modified for Materials)

The Strange Case of Automobile Safety and The Gasoline Shortage

Often times when private and public decisions are being made by individuals and politicians, somethings both fail to systematically examine a variety of alternatives before ultimately making the decision. The case of automobile safety legislation provides an excellent case and point where the question may be raised: did the politicians carefully consider alternatives when passing the National Motor Vehicle and Traffic Safety Act in 1966 or was it railroaded through the political system by certain pressure groups in the political system. Sometimes pressures from different fronts result in sudden passage of laws where more time should have been taken discussing the implications if the law is passed. In a political frame of reference, the Gulf of Tonkin resolution and the National Safety Act have many similarities. In both cases Congress was dealing with a problem and in the process of making their decision failed to consider both the possible alternatives and consequences of their decision. Although the two political situations are dissimilar in many ways, both resulted in decisions that imposed a cost involving billions of dollars on society.

This issue of automobile safety either affects you now or will at some future time when you purchase your first car. The issue we will be examining is basically this: should you as a car owner be required to purchase safety devices or should you be able to select what safety gadgets you desire. There are strong feelings on both sides of the issue, thus the attached editorial "Stop the Juggernaut, Auto Safety Is Hurtling Toward a Dead End" is included as a starting point.

Stop the Juggernaut

Auto Safety Is Hurtling Toward a Dead End

In 1966, however, Congress, through passage of the National Motor Vehicle and Traffic Safety Act, made a distressingly wrong turn. Under a series of directors, some of whom have felt free, so to speak, to ride their hobby horses, the National Highway Traffic Safety Administration over the years has promulgated two score and more motor vehicle standards. Thanks to its zeal, automobiles today come equipped with energy-absorbing steering columns, high-penetration-resistant window glass, improved instrument panels, reinforced door structures, headrests, seat belts and interlocking systems that won't permit the car to start unless the belts are on. Down the road, if NHTSA and Nader have their way, loom further marvels of technology: fuel tank integrity, radar braking, air bags.

From a cost standpoint, such innovations have had a ponderable impact. For one thing, motorists' long-simmering wrath at the inconveniance and expense has begun to boil over. According to those who are pushing for air bags and other so-called passive restraints (no action is required of drivers or passengers), at least two out of five seat belts lie idle. Repair shops which specialize in ridding new cars of anti-pollution and safety devices, legally or otherwise, do a thriving business; in Detroit, a car can be completely "debugged" for ten dollars, in an age inflation a modest sum and one which indicates heavy traffic. Weight-wise and in dollars-and-cents, rough estimates are available, too. Depending on the make and model, safety equipment has added 300-odd pounds to gross vehicle weight, and, with respect to the '74s, $300 to the price (over $500 by 1976). All told, including the extra gas needed to move the added weight, safety is costing the not-so-happy motorist a sum approaching $5 billion per year, and the end is nowhere in sight.

Like the federal bulldozer, the safety juggernaut is no economy model. For its huge outlay, the motoring public has precious title to show. By government decree, all '73s had to be equipped with bumpers that could meet low speed barrier tests, thereby reducing the frequency of front and rear damage. While the latter has fallen off, savings have been wholly offset by the higher cost of repairing the new bumpers. Volkswagen has just served notice on owners of Beetles made between 1968 and 1972 that seat and shoulder belts, improperly stowed, may be weakened by an accumulation of battery acid on the floor. Consumers Union has found four out of seven federally approved auto seats for children faulty. In December, 1972, a U.S. Circuit Court of Appeals delayed imposition of mandated passive restraints because the official test dummies (why should they be any different) failed to work right.

According to the Department of Transportation, the effectiveness of head restraints "has been very low," in at least one case, they allegedly have proven lethal. Josephine B. Hubbell, widow of a psychiatrist who died after striking a headrest in his Chevy Nova during a rear-end collision, has just won $2 million in damages from GM (which has filed an appeal). And the safety statistics furnished cold comfort. As we wrote last fall, deaths per million vehicle miles were down, but the de-

cline "barely matched that of the 'Fifties, when Detroit was allegedly selling razzle-dazzle and Ralph Nader was still in school.

Thanks to the gasoline shortage, however, the free world lately has turned into a safety laboratory, with what can only be viewed as astonishing results. According to the National Safety Council, U.S. vehicle-miles driven in November and December lagged the year-earlier total by perhaps 2%. Yet, as speed limits throughout the country were lowered to 55 miles an hour, the number of highway fatalities in the two months dropped 9% and 19%, respectively. In January, with driving off perhaps 5-10% (Safety Council figures aren't available yet). U.S. highway deaths plunged 25%. (In Germany, a 62 m.p.h. limit cut the number of fatalities and injuries by three-fifths.) Even the National Highway Traffic Safety Administration seems impressed. It reports that 16 states with lowered speed limits in November showed a 15%-20% drop in the number of highway deaths, those which left them unchanged only 2%. NHTSA may not fully grasp the significance of such statistics, or may not want to, but the meaning is clear. In automotive safety, the U.S., by over-emphasizing the car and virtually ignoring the driver, has been hurtling toward a dead end. It's time to slam on the breaks and back up.

—Robert M. Bleiberg

Barron's, 3-25-74

Student Notes

To Guide Your Reading

Juggernaut

"debugged"

fatality

"passive restraints"

Some Questions to Consider

1. What safety devices are now required for automobiles?
2. How are some motorists avoiding using some of the equipment?
3. What is the cost to the new car owner for the safety equipment in 1974? in 1976? total cost to all motorists?
4. Currently, what are some problems now facing motorists in regard to heavier bumpers?
5. How did the gasoline shortage result in some unexpected benefits?

Student Notes

Motorcycles and Public Safety

Evaluation Option

After completing the discussion on the pros and cons of automobile safety, one possible strategy for determining what was learned from the previous exercise would be to read the following editorial, "Motorcycles and Public Safety" and answer the question what should the National Highway Traffic Safety Administration do about the hazards related to motorcycles?

Alernatives to be considered related to the future orientation of the National Traffic Administration regarding motorcycles:

1. Should motorcycles be outlawed?
2. Should motorcycles be outlawed during rush hour traffic?
3. Should motorcycles be outlawed in metropolitan areas?
4. Should motorcycles have additional safety devices?
5. Should motorcycle drivers be required to fulfill different regulations?
6. Should motorcycles have lower speed limits?

In examining each alternative both costs and benefits to both the individual and society should be considered.

Motorcycles and Public Safety

DOES IT seem odd to you, as it does to me, that a Government that compels the driver of a 1974 automobile to be snug in a safety harness before his car will start, a Government greatly interested in air bags, padded dashboards, and all manner of safety-related bells, buzzers, and flashing lights — does it seem odd to you that such a Government permits the operation of motorcycles on public road?

There are few more hazardous ways of getting from one place to another, short of being shot out of a cannon, than by riding a motorcycle.

Says Lewis S. Buchanan of the National Highway Traffic Safety Administration: "More than 80 per cent of the reported motorcycle accidents result in injury or death. A comparable figure for automobiles is 10 per cent."

A minimum amount of good will, I think, requires all of us to count to 10 before condemning another person's choice of fun. Motorcyclists pay taxes too, and they have their rights. But even though the nation's roads are for the use of many kinds of vehicles, we may properly draw the line when the evidence suggests that a certain type of machine, because of its very design, is unusually dangerous to the operator and any passenger.

There is a temptation to say, and some people probably do say, that so long as the motorcyclist's risk is mostly to himself, let him be. After all, motorcycles very rarely run down pedestrians, and in any encounter between a motorcycle and a car, the motorcycle is likely to lose.

This attitude, however, fails to take into account that motorcycles can be the indirect cause of auto accidents. Their presence often startles and confuses motorists because the narrow, two-wheeled vehicles are hard to see. (Notes the Government's Buchanan: "A pencil held at arm's length will obscure a cyclist only 100 feet away.")

There is a special danger when a motorcycle approaches a car from the rear. There are blind spots in the driver's rearward vision that usually don't affect his seeing another auto, but seeing the slender motorcycle is another matter.

It is unnecessary to serve up a large plate of gore here. You have heard about the recent motorcycle accidents that cost an actor an arm and a leg, that put a Minnesota Viking football player in a wheel chair for the rest of his life, that left a New Jersey youth paralyzed from the neck down until his grief-stricken brother shot him dead in a mad act of mercy. But you probably have not heard about many of the less-publicized accidents that resulted in 2,747 deaths in 1972.

It is certain that the number of such deaths will increase greatly in the next few years. Again quoting Buchanan. "From registrations of less than 600,000 in 1960 the total of registered motorcycles has grown to about 4 million. It is likely that an additional 600,000 registrations [have been] added during 1973. It is probable that the use of motorcycles will continue expansion until about 10 per cent of all registered vehicles are motorcycles."

The National Highway Traffic Safety Administration, which is part of the Department of Transportation, recognizes the special hazards of motorcycle riding. And the agency is conscientiously pushing such safety precautions as improved cyclist training, crash helmets, periodic cycle inspection, and daytime use of the headlight.

If all the states adopted all the motorcycle regulations the Federal Government has urged, and if all the states enforced the legislation already on their books, Washington officials contend, the high motorcycle death rate would be reduced.

But even after all that can be done has been done we are left with

the nature of the motorcycle itself. It is not a suitable machine to mingle with cars, buses, and trucks on public thoroughfares. The rider is utterly exposed, any passenger is in equal jeopardy, bad roads and bad weather enormously multiply the risks, and the motorcycle is so hard for motorists to see and to anticipate that its presence is an unjustifiable threat to public safety.

—*Edwin A. Roberts Jr.*
The National Observer, 12-29-73

Future Fear

Student Notes

During the Winter of 1974 and continuing through the Summer of 1975, the U.S. has experienced one of the worst recessions since the 1900's. Unemployment has skyrocketed to the unprecedented height of over 10% in some states and the prospects for a rapid recovery depend on many unpredictable variables. One of the variables, possibly the most critical, is the future available supply of energy. One further complication is that a large portion of our supply is foreign and its availability is dependent on the political mood of the Arabs.

However, before one becomes overly depressed, the past record of performance within the U.S. economy should not be overlooked. Although there have been ups and downs in the economy over the past four decades, the real growth (ability to produce goods and services) has averaged about 4% through our history. Thus, if past performance provides any indication of the future, the U.S. economy has always been able to come back.

Future Fear

Is the Economy Sliding Into Five or Ten Years Of Stagnation, Unrest?

Some Observers See the U.S. Following U.K.'s Decline And Facing Low Growth

Bitter Politics of Income Pies

By JAMES P. GANNON
Staff Reporter of THE WALL STREET JOURNAL

There is one dimension of the nation's economic condition that can't be found in all the official statistics, the economists' forecasts, the government reports. It is intangible, immeasurable, but important.

It comes across strongly when businessmen and economists are asked to look five to 10 years ahead, and to think out loud about what sort of American economic situation they foresee. Call it future fear.

It takes varying forms: A feeling that the U.S. is sliding down the British path of decline toward economic stagnation. A belief that resource scarcities point toward slow growth and political strife over how to slice up a static national-income pie. A conviction that a political system that rewards politicians who deliver short-term benefits can't cope with long-term economic problems requiring sacrifice. A fear that we haven't learned from our past economic blunders and are doomed to repeat them.

A decade of economic, political and social turmoil produces somber moods and sober musing. Perhaps these visions are simply exaggerated extrapolations of the recent past into the near future. Waves of economic pessimism have swept over the U.S. before, especially during the Great Depression, only to ebb away amid subsequent prosperity. And since the current worries are focusing on the years just ahead, they aren't talking about the possibility that scientific advances later on could overcome the energy problems that confront the economy now.

Another word of caution: These views aren't from a cross-section of America; they come mainly from business people and economists—most, though not all, conservatives. Most of these are people with a major stake in the status quo, and with a fear that it is crumbling.

But even if their worries are way off-base as forecasts, they have some significance as influence on Americans' current thoughts and actions. Thus they're worth hearing.

Student Notes

Some Questions to Consider

a) How will the supply of energy affect our future lifestyle?

b) Will the future result in more government involvement within the economy?

c) What are future job propects for the high school and college graduates?

d) What kinds of jobs will be in greater demand in five years, in 10 years?

e) What implications does a no-growth economy have for different socio-economic groups?

Many people maintain different positions regarding the future of the U.S. economy. Some of the variance in position may be due to one's socio-economic position. However, one's age may flavor how he feels about the economy. Read each of the following and respond to the questions.

The Executive

Fletcher Byrom pulls the cellophane wrapper off a ham sandwich, pops the plastic lid from a Coke and invites a visitor to lunch in his Pittsburgh office, where he's chairman of Koppers Co., a diversified industrial concern. Mr. Byrom isn't a typical corporate chief executive. He reads books on philosophy and social change. He leads seminars for his middle managers. He thinks a lot, broods a lot.

"I see the potential for significant improvement in our economy, but I don't think it will be realized," he says. "In five to 10 years, we will be moving strongly in the direction of state control of capital-intensive industries. It is already too late for the electric utilities. Our political system just won't allow corporations to make the profits they need.

"Look, we've got a political system that won't work. A Congressman has to get reelected every two years. The time frames of our office holders are incompatible with the problems we face. We keep proceeding with ad hoc responses to crises. We're basically escapists. We don't want to admit we have an energy problem, so even now we still don't have a energy policy in this country."

His solution is sweeping: a constitutional convention to redefine the goals of U.S. society, overhaul the political system (perhaps a one-term, nine-year presidency and longer terms for Congressmen) and establish an economic planning body to set long-term policies.

Mr. Byrom rejects the notion he's a pessimist. "I think we're in terrible trouble, but I'm suggesting we have a way out. The system has to be changed. I see no other way. The only concern I have is whether or not we have enough time."

The Executive

He refers to the possibility of more state control of certain industries. What would be some advantages and disadvantages?

What are some advantages and disadvantages to his suggested modification of the political system?

The Professor

Robert Lekachman, who teaches economics at the City University of New York, is hardly a conservative. "I'm from the respectable old left," which means wearing a shirt and tie and "belief in occasional haircuts," he says with a smile. Without any drama, he sketches out a coming age of scarcity.

"I think we are entering a long period of slower growth. I take seriously the resource scarcities. We've reached the end of cheap energy. Energy shortages will act as a drag on growth. Income will be shifting out of this country to the oil producers. The prospects for improvement in the American standard of life thus are much less than they've been.

"This has very intriguing political implications. I think we are going to enter a period where the politics are going to center on income redistribution. This is a very painful sort of politics. You see, in the politics of growth, you can say that there is going to be more for everybody. But in the politics of redistribution, if someone is going to get more, someone else is going to get less. This means more confrontation between groups."

In a slow-growth society, people who have jobs and incomes would have to support growing numbers who don't, the professor says. This would cost the middle class dearly, he thinks. "It's going to cost all upper and middle-income people dough. You won't be able to finance things just by raising taxes on people in the $150,000-a-year bracket. There just aren't enough of them. You'll finance it by taxing people in the $25,000-and-up brackets. And that includes professors."

The Professor

Professor Lekachman suggests, "We've reached the end of cheap energy." How will rising costs of energy affect our life style?

How is income from energy being shifted to other countries?

How does the increasing price of energy result in income redistribution?

Have class consider implications of the last paragraph as they become productive members of society in future years.

High School Graduate

"I've heard that the economy's in pretty bad shape," says Joe Schmoe, a graduating high school senior, when asked about his view on the state of the economy. Joe is 17, a white male, no special skills, and will be graduating from high school in two days. Joe has been trying for a month to find a job for the summer to help pay his way through college.

"Finding a job is really tough these days. I've never worked before, so I have no experience. Everywhere I've applied for work either there just aren't any openings ,they've already hired the older, experienced college kids, or you have to be a member of a minority group. I guess the only way to get a job is to know someone."

When asked about the future 5-10 years of our economy, Schmoe answers, "I'm not worried about it. From what I've seen, the economy seems to go in cycles pretty much, and it's so low now it can only go up."

As Joe hops into his jacked-up, sound-up Dodge 'Super Bee', he says, "I think the country will come out of this unemployment stage okay in the long run; I'm just worried right now about how I'm going to find a job to pay for gas for my car now and college in the fall.

As a concluding activity, have class consider the hypothetical student, Joe Schmoe. Do you agree or disagree with his prognosis of the economy? Explain why.

To Guide Your Reading

1. Economic Stagnation
2. Extrapolations
3. Status Quo
4. Capital-Intensive
5. Income Redistribution

Gas-Saving Engines?

Student Notes

The Role of Government

Several of the previous lessons have considered government's role in the economy. An area that has been getting increasing attention in recent years is the development of a gas-saving engine. The natural question to raise would be—Should the development of this gas-saving technology be left to the private sector or subsidized by the public sector (government). The following article presents an overview of four gas-saving possibilities that are currently being researched. After reading the article consider this question: Should government or private industry be responsible for spending dollars to promote this form of technology.

In considering the extent of government involvement, if any, a review of the previous section titled, "Modifying the Market System," may be helpful.

GAS SAVING ENGINES?

. . . Despite progress, production isn't likely for many years.

By Paul C. Hood
FROM ANN ARBOR, MICH.

If you're expecting quick technical miracles to produce an automobile engine that will end air pollution and wean us away from petroleum, forget it. Some new power sources seem sure to be developed eventually. But chances are today's infants will be coping with essentially the same kind of auto power plant you're using when they're old enough to drive.

No other conclusion seems reasonable after hearing an engineering report session sponsored here by the division of advanced automotive power systems of the Energy Research and Development Administration. The technical experts devoting their skills to producing an alternative to the conventional gasoline engine are the first to concur.

But there's every reason to believe that the days of the spark-ignition, piston-type auto engine are numbered. Within 20 years the first alternative power systems should be coming off the production lines.

Four Possibilities

What will the new engines be? Best bets today appear to be gas turbines, steam adaptations, and the European Stirling engine, with an outside chance for electric models. Reports indicate good progress on each of these systems as researchers seek to meet two critical standards: low emissand fuel economy.

"There is not an engine on the list today that could double the fuel economy with known technology," says George Thur, chief of the power-systems division.

When the Government's big push on auto engine-alternatives started in 1970, the goal was primarily to cut back emissions to Federal Clean-Air Act requirements. Since then concern over a dwindling and more expensive petroleum supply and dependence on foreign oil may have taken precedence; the exploratory work started in the Environmental Protection Agency now has been assigned to the Energy Research and Development Administration, organized only last January.

Short-Term Savings Important

Coupled with the engine research are programs to produce synthetic fuels and to modify the internal-combustion engine for short-term economies.

And don't sniff at the idea of tinkering with today's vehicles to produce limited savings for the short term. Because of the fairly long road life of motor vehicles, Government analysts figure bringing the national average fuel consumption up to 28 miles per gallon in 1980 would save more gasoline by the end of the century than having a 40 m.p.g. car introduced in 1985 or a 60 m.p.g. car in 1990.

Modifications of existing engines already are on drawing boards, and some are getting to the experimental hardware stage. Federal energy officials are pinning their hopes not just on improvements in the gasoline-combustion process but also on more efficient transmissions with infinitely variable speed, improved accessory drives, and even devices for using exhaust heat to improve engine efficiency.

Such stop-gap measures could buy time to put revolutionary engine changes into use. But time is not all that's needed: Engineering skill is required to polish up the alternative power plants, and plenty of money is needed to effect the manufacturing changeover.

Research-and-development executives for two of Detroit's Big Three auto makers agree roughly on the requirements. From the time a satisfactory, tested experimental engine is completed, they estimate it will take a minimum of 10 years and $500 million to bring it to full production.

And there's always the risk. "If the industry were to go to the gas turbine and we had some kind of flap of the type that surfaced on the catalyst [system for auto-pollution control], something unknown and unforeseen, the industry could go bankrupt," says George Huebner, Chrysler director of research.

Huebner is the leading advocate of the gas-turbine system and has guided Chrysler research through six generations of turbines. A fleet of 50 turbine-powered cars has demonstrated the concept world-wide, and the cars have been an auto-show staple for years. Development of a seventh generation is under way.

In the turbine, air is compressed and then forced into a burner where fuel sprayed through a nozzle is burned at a temperature of about 1,850 degrees. Hot gases from the combustion drive both an

air compressor turbine and turbine blades connected to the car's drive shaft.

'It Will Burn Anything'

In these fuel-conscious times the burner has a fascinating feature: "It will run on anything that will run through a pipe and burn," says Heubner. In actual tests that has meant gasoline, diesel fuel, kerosene, peanut oil—even tequila and perfume.

Heubner is confident that the seventh-generation engine will meet all 1978 emissions standards and predicts it will show a slight improvement in fuel economy over a conventional car.

"At high temperatures," says Heubner, "the turbine looks as if it will be one of the most efficient power plants that we have ever seen." To gain those high operating temperatures at reasonable cost, ceramic parts are being developed to replace components, such as the turbine wheels, now made from expensive steel alloys.

Durability Looks Good

The engineer ticks off some of the engine's advantages: durability (some have run 150,000 to 175,000 miles), low maintenance (no tune ups, no oil changes), quiet performance, no central-cooling system, and no cold-start problems. On the negative side, most of the problems now encountered are in finding materials to withstand the extreme operating heat.

The National Observer, 5-25-75

Summary of Remaining Article

Steam Turbine

ADVANTAGES:
1. Meets proposed emissions standards.
2. Durable.

DISADVANTAGES:
1. Has not been seriously considered by industry over last 30-40 years.
2. Fuel diseconomy.
3. Bulky.

European Stirling Engine

ADVANTAGES:
1. Meets emissions standards.
2. Ford tests with Torino found fuel economy gain over conventional engine.
3. Quiet.
4. Multifuel capability.

DISADVANTAGES:
1. Size and weight.

Electric Cars

ADVANTAGES:
1. Quiet.

DISADVANTAGES:
1. Need breakthrough in battery technology.

Some Questions to Consider

1. If government subsidizes research, from what sources should the dollars be obtained?

2. Are possible improvements in engine technology the responsibility of private industry?

Summary Glossary of Concepts Related to Readings*

Competition, pure or perfect: so many buyers and sellers of a standardized product that no one seller or buyer can dictate price. Perfect competition implies perfect knowledge by buyers and sellers of conditions in the market.

Consumer sovereignty: the consumers getting what they most want. In a market economy, the goods mix is determined by consumers' purchases. The imposition of federal safety standards on automobiles is an example of infringement upon consumer sovereignty.

Demand, law of: the higher the price, the lower the quantity demanded, and vice versa, other things remaining the same.

Equilibrium of supply and demand: the price at which quantity demanded equals quantity supplied.

External cost: the difference between the total cost of an activity to the surrounding area and that part of the cost (the "private cost") incurred by the persons undertaking the activity. The burning of a bonfire in one's backyard would result in external costs to the neighbor.

Factor mix: combination of inputs or factors of production. The typical factor mix consists of land, labor and capital used to produce a good or service.

Fiscal policy: decisions about total government expenditures and taxes, particularly those of the federal government. The government may use fiscal policy—either modify the tax structure or expenditures—to stabilize the economy, i.e., to achieve full employment and capacity output without inflation.

Inflation: rising prices; an increase in a price index. The causes vary, but usually arise from excessive fiscal and monetary policies relative to the economy's capacity to produce.

*The glossary is very basic and a basic economics textbook would be a useful reference tool in the classroom.

Mixed economy: a term referring to the industrialized economies such as the United States which are still basically free private enterprise, but which have admixtures of government regulation to achieve certain goals as economic justice, security, freedom, stability or growth.

Money: Generally can be categorized in three areas:

1. anything commonly accepted as a means of payment.
2. currency outside banks plus demand (checking) deposits.
3. currency outside banks plus demand deposits plus time (savings) deposits in commercial banks.

Opportunity cost: the amount of any other commodity given up in order to produce or purchase a good or service. Attending school would result in an opportunity cost to the individual.

Prices, role of, and price system: the price signal plays a major role in the allocation of resources in the United States. A rise in the price of a good or service signals the need to produce more of it and shows that consumers desire more of that good or service than is currently available.

Profit: the difference between total revenues and total costs.

Rationing: 1. the division of a fixed supply among buyers. 2. non-price rationing administered by the government, e.g., coupon rationing with gasoline.

Scarcity, law of: principle that there are not resources available to produce everything that people want.

Shortage: excess of quantity demanded over quantity supplied. Results in competitive markets from price being below equilibrium.

Social benefit: the total benefit of producing a good or service, irrespective of whether the consumer or someone else gets it; social product.

Supply and demand, law of: in a competitive market, price tends toward an equilibrium at which quantity demanded equals quantity supplied.

Surplus: excess of quantity supplied over quantity demanded. Results in competitive markets from price being above equilibrium.

Price Supports: Artificial prices imposed by government that usually result in surpluses because producers are encouraged by the higher price to produce more of the commodity.